

MINOR CHANGE APPLICATION
WAGR BROADCASTING, INC.
NEW FM TRANSLATOR STATION
CH 246D - 97.1 MHZ - 0.25 kW
LUMBERTON, NORTH CAROLINA
March 2018

EXHIBIT C

Radio Frequency Radiation Study

This radio frequency radiation study is being conducted to determine whether this proposal is in compliance with OET Bulletin #65, dated August 1997, regarding human exposure to radio frequency radiation in the vicinity of broadcast towers. This utilizes the appropriate formulas contained in the OET Bulletin.

The proposed Channel 246 antenna will be mounted 121.0 meters (397.0 feet) above ground level and will operate with 0.25 kilowatt of power in the horizontal and vertical planes (circularly polarized). At 2.0 meters above the ground at the base of the proposed tower, the height of an average person, the Channel 246 antenna system will contribute 0.0007 mw (worst case).¹ Based on exposure limitations for a controlled environment, <0.1% of the allowable ANSI limit is reached at 2.0 meters above the ground at the base of the proposed tower. For uncontrolled environments, 0.4% of the ANSI limit is reached at 2.0 meters above the ground at the base of the tower.

Since this level for controlled and uncontrolled environments is less than the 5% limit defined by the Commission in §1.1307(b)(3)(i), the proposed Channel 246 FM translator antenna

1) This level of signal falls 32.0 meters from the base of the tower and is considered worst case.

system facility is believed to be in compliance with the radio frequency radiation exposure limits, as required by the Federal Communications Commission. Further, WBI will ensure warning signs are posted in the vicinity of the tower warning of potential radio frequency radiation hazards at the site. In addition, WBI will reduce the power of the facility or cease operation, in cooperation and coordination with other tower users, as necessary, to protect persons having access to the site, tower or antenna from radio frequency radiation in excess of FCC guidelines



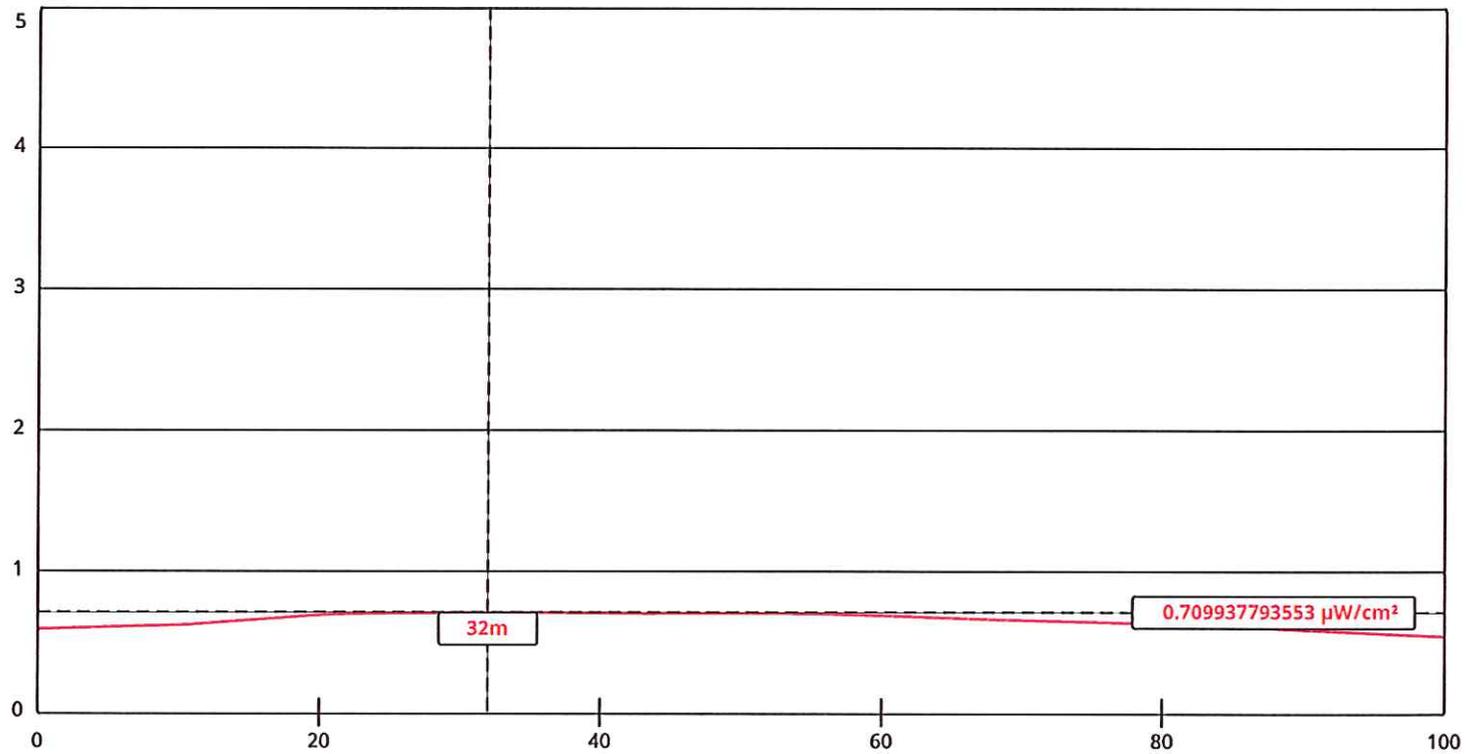
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FM Model

EXHIBIT C1
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The FM Model calculator determines the potential exposure from radiofrequency (RF) electromagnetic fields produced by FM broadcast station antennas at ground level. The FM Model software was originally developed by the FCC in 1997 as a standalone executable program and this improved version provides more precise predictions and runs via a JavaScript enabled web browser. The FM Model is originally based on measured data [published in 1985 by the EPA](http://nepis.epa.gov/Exe/ZyNET.exe/2000ED2W.TXT?ZyActionD=ZyDocument&Client=EPA&Index=1981+Thru+1985&Docs=&Query=&Time=&EndTime=&SearchMethod=1&TocRestrict=n&Toc=&TocEntry=&QField=&QFieldYear=&QFieldMonth=&QFieldDay=&IntQFieldOp=0&ExtQFieldOp=0&XmlQuery=&File=D%3A\zyfiles\Index%20Data\81thru85\Txl\00000003\2000ED2W.txt&User=ANONYMOUS&Password=anonymous&SortMethod=h|-&MaximumDocuments=1&FuzzyDegree=0&ImageQuality=r75g8/r75g8/x150y150g16/i425&Display=p|f&DefSeekPage=x&SearchBack=ZyActionL&Back=ZyActionS&BackDesc=Results%20page&MaximumPages=1&ZyEntry=1&SeekPage=x&ZyPURL) (<http://nepis.epa.gov/Exe/ZyNET.exe/2000ED2W.TXT?ZyActionD=ZyDocument&Client=EPA&Index=1981+Thru+1985&Docs=&Query=&Time=&EndTime=&SearchMethod=1&TocRestrict=n&Toc=&TocEntry=&QField=&QFieldYear=&QFieldMonth=&QFieldDay=&IntQFieldOp=0&ExtQFieldOp=0&XmlQuery=&File=D%3A\zyfiles\Index%20Data\81thru85\Txl\00000003\2000ED2W.txt&User=ANONYMOUS&Password=anonymous&SortMethod=h|-&MaximumDocuments=1&FuzzyDegree=0&ImageQuality=r75g8/r75g8/x150y150g16/i425&Display=p|f&DefSeekPage=x&SearchBack=ZyActionL&Back=ZyActionS&BackDesc=Results%20page&MaximumPages=1&ZyEntry=1&SeekPage=x&ZyPURL>). [▼ Show More....](#)

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[View Tabular Results +](#)

| | | | |
|-------------------|--|---------------------|----------------------------------|
| Channel Selection | Channel 250 (97.9 MHz) ▼ | | |
| Antenna Type + | EPA Type 1: Ring-and-Stub or "Other" ▼ | | |
| Height (m) | <input type="text" value="121.0"/> | Distance (m) | <input type="text" value="100"/> |
| ERP-H (W) | <input type="text" value="250"/> | ERP-V (W) | <input type="text" value="250"/> |
| Num of Elements | <input type="text" value="1"/> | Element Spacing (λ) | <input type="text" value="1"/> |
| Num of Points | <input type="text" value="500"/> | Apply | |